



# ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Golden, Jefferson County, Colorado

**Office:** Rocky Flats Operations Office

**Size:** 6,550 acres (10.2 square miles)

**NPL Status:** Placed on the NPL on October 4, 1989.

**Mission:** The mission of the Rocky Flats Environmental Technology Site (RFETS), formerly the Rocky Flats Plant, is to manage waste and materials, and to clean up and convert the site for beneficial use in a manner that is environmentally safe and socially responsible, physically secure, and cost-effective. This includes special nuclear material stabilization, deactivation and decommissioning, waste management, environmental restoration clean-up, and site closure.

## **Overview of Environmental**

**Conditions:** Onsite contamination of soil, groundwater, and surface water by chemical and radioactive materials used at the facility. Offsite soil contamination has also been identified.

## **Total Site Funding in FY 98:**

\$632,100,000 (\$55 million was associated with traditional environmental restoration, the remainder was applied to activities such as deactivation, SNM stabilization and waste management.)

## **Progress in Reaching Interagency Agreement**

On July 19, 1996, DOE, EPA Region VIII, and the Colorado Department of Public Health and Environment (CDPHE) signed the Rocky Flats Cleanup Agreement. This document superseded the previous Interagency Agreement (IAG) executed by these parties on January 22, 1991, which in turn replaced the July 31, 1986 Resource Conservation and Recovery Act/Comprehensive Environmental Response, Compensation, and Liability Act Compliance Agreement originally executed by these parties.

## **Specific Cost Estimates and Budgetary Proposals Involved in Interagency Agreement**

Total funding for RFETS in FY 99 is \$657.2 million, and \$657.2 million for FY 00 according to the request in the President's Budget.

## **Public Comments Regarding Interagency Agreements**

Discussions began in FY 93 between DOE and the regulatory agencies regarding negotiation of the new Rocky Flats Cleanup Agreement. The public was kept abreast of this activity, and a preliminary draft of the agreement was provided for informal comment. On March 14, 1996, the draft of the new cleanup agreement was released for public comment. More than 100 individuals and organizations submitted written comments, which were carefully reviewed and considered during the preparation of the final agreement. Almost 40 people presented oral statements at the public hearings. A responsiveness summary was prepared.

### **Progress in Conducting Remedial Investigations/Feasibility Studies**

Initial site characterization efforts at RFETS began in July 1986 under the RCRA/CERCLA Compliance Agreement and continued under the IAG. A comprehensive list of all known and suspected hazardous, radioactive, and mixed waste sources at the site has been compiled, including descriptions of all known release information for 178 individual hazardous substance sites. These sites were originally categorized for further environmental investigation and remediation into 16 OUs based on cleanup priorities, waste type, geographic location, and public input. Since that time, characterization has been completed and no-action RODs have been approved by DOE, EPA, and CDPHE for four OUs (3, 11, 15, and 16). Additionally, a CAD/ROD for OU 1 has been approved and an amended CAD/ROD for OU 1 is pending.

Under the Rocky Flats Cleanup Agreement executed in 1996, eight of the 11 remaining OUs were consolidated to reduce administrative and process requirements. The resulting arrangement of the remaining OUs is as follows: Industrial Area (former OUs 4, 8, 9, 12, 13, 14 and part of 10), Buffer Zone (former OUs 2 and the remainder of 10), original OU 5, original OU 6 and original OU 7. The following is a summary of progress in these OUs.

Industrial Area - Instead of continuing with studies in the Industrial Area, an Interim Measures/Interim Remedial Action (IM/IRA) has been implemented. This involves sampling of soil, air, groundwater and surface water. A report was provided to the regulators in March 1996, FY 97 and FY 98.

Buffer Zone - Two Proposed Action Memoranda (PAMs) were initiated in FY 96, one PAM and one IM/IRA were initiated in FY 97 and one PAM was completed in FY 98.

OU 5 - The final RI Report was delivered to the regulators in 1996. Two individual hazardous substance sites were transferred to the Industrial Area OU, and a no-action ROD is being considered for OU 5.

OU 6 - The RI Report was submitted in March 1996. Results indicate that the majority of individual hazardous substance sites in OU 6 do not require cleanup. Two individual hazardous substance sites were transferred to the Industrial Area OU. RFETS is awaiting comments from regulators on the RI.

OU 7 - An IM/IRA document was completed in 1996. A presumptive remedy, capping of the landfill, is envisioned. A PAM for a leachate collection system was initiated and implemented in 1996 and continued through FY 97.

Public involvement activities were completed as planned, including public comment periods on various documents, monthly coordination meetings with the regulators, document placement in reading rooms and repositories, and tours/presentations/briefings to the public on various topics.

### **Progress in Conducting Remedial Actions**

OU 1 - French Drain groundwater collection system and treatment facility was constructed and began operating in FY 92. Several small radioactive "hot spots" were removed in FY 94. The CAD/ROD for OU 1 identified one individual hazardous substance site requiring contamination source removal. Additional sampling showed that a contamination source does not exist. In FY 99 the CAD/ROD will be amended and OU 1 will be closed out with no further remedial action.

OU 2 - Surface water collection and treatment system was completed and placed in operation in FY 92. OU1 and OU 2 treatment systems were combined in FY 95 and are now used to treat all site groundwater requiring treatment.

OU 2 (now Buffer Zone OU) - Ryan's Pit removal action was completed in FY 95. Approximately 200 cubic yards of contaminated soil were excavated. In FY 96 these soils were treated by thermal desorption and returned to the trench.

OU 2 (now Buffer Zone OU) - The Mound Site was completed in FY 97. Thermal desorption was used to treat 724.5 cubic yards of soil contaminated with volatile organic compounds.

OU 2 (now Buffer Zone OU) - Trench T-1 was excavated in FY 98 to retrieve drums of depleted uranium and other associated materials. Approximately 170 drums of depleted uranium were retrieved, inerted, repackaged and staged for offsite disposal. The trench will be backfilled in FY 99.

OU 2 (now Buffer Zone OU) - Mound Site Groundwater Plume Reactive Barrier was installed in FY 98 (this drum storage area was cleaned up as an accelerated source removal action in FY 97). Barrier intercepts and treats volatile organic contaminants and radionuclides. Monitoring of water quality to demonstrate barrier effectiveness was initiated in late 1998.

### **DEACTIVATION, DECONTAMINATION, DECOMMISSIONING**

Building 771 Deactivation - In FY 98, piping systems were deactivated and uncontaminated equipment was removed. The majority of decommissioning (e.g., strip out of glove boxes) for Building 771 will be accomplished in FY 99. Building 771 was one of the original facilities used at Rocky Flats to purify and recover plutonium for use in weapon component manufacturing.

Building 779 Decontamination and Decommissioning - In FY 98, decommissioning of the first major nuclear facility at Rocky Flats was initiated with Building 779. Eighty-two glove boxes out of 133 were removed and packaged as waste. The goal is to demolish this 68 thousand square foot facility by the end of FY 99.

Building 123 Demolition - The major non-nuclear decommissioning activity in FY 98 at Rocky Flats was the demolition of Building 123 and several ancillary buildings. The demolition was carried out, resulting in removal of all physical structure down to a clean slab. A total of 5891 cubic yards of low level radioactive, low level radioactive mixed, hazardous and industrial sanitary waste was generated.

Rocky Flats has 12 decommission projects planned, four of which are related to and managed by Environmental Restoration. The Environmental Restoration Projects are indicated in the following list by the designation (ER):

RF001	Buffer Zone Closure Project (ER)
RF003	Remediation Waste & Contingent Storage Project (ER)
RF013	Closure Caps Project (ER)
RF014	Industrial Zone Closure Project (ER)
RF015	Miscellaneous Production Zone Cluster Closure Project
RF016	Building 371 Cluster Closure Project
RF017	Building 707/750 Cluster Closure Project
RF018	Building 771/744 Cluster Closure Project
RF019	Building 776/777 Cluster Closure Project

RF020	Building 881 Cluster Closure Project
RF021	Building 991 Cluster Closure Project
RF022	Building 779 Cluster Closure Project